REMARKS

I. STATUS OF THE CLAIMS

Claims 1, 3-11, 13-35 and 41-45 are pending in the present application. Claims 1, 13, 18, 30 and 41 are the independent claims.

None of the claims have been cancelled or amended.

II. THE SPECIFICATION

The specification has been amended at paragraph [0029] to correct the minor error indicated by the Examiner.

Accordingly, Applicants respectfully request that the objection to the specification be withdrawn.

III. THE REJECTION OF CLAIMS 1, 3-11, 13-17, 41, AND 45 UNDER 35 U.S.C. §101 BECAUSE THE CLAIMED INVENTION IS DIRECTED TO NON-STATUTORY SUBJECT MATTER.

On page 3 of the Office Action, the Examiner indicates that claims 1 and 13 recite a method which can be performed with software alone and that there is nothing recited which indicates that any form of hardware is needed. The Examiner further indicates that software by itself is non-statutory subject matter.

This rejection is traversed and reconsideration is respectfully requested.

Claims 1 and 13 recite methods or processes for preventing unauthorized copying of data during transmission between a sender and a receiver, and decrypting cipher text received from a sender to a receiver. Accordingly claims 1 and 13 recite methods or processes for encrypting and decrypting data (See FIG. 3). Therefore, claims 1 and 13 are not drawn to software as alleged by the Examiner but rather to method claims and thus are statutory subject matter.

Even assuming arguendo that claims 1 and 13 were drawn to software, page 2100-15 of MPEP 2106, notes that a claim the requires one or more acts to be performed defines a process. To be statutory, a claimed computer-related process must either: (A) result in a physical transformation outside the computer for which a practical application in the technological arts is either disclosed in the specification or would have been known to a skilled

artisan, or (B) be limited to a practical application within the technological arts.

MPEP 2106 at page 2100-18 further notes that "for such subject matter to be statutory, the claimed process must be limited to a practical application of the abstract idea, or mathematical algorithm in the technological arts." A claim is limited to a practical application when the method, as claimed, produces a concrete, tangible and useful result; i.e., the method recites a step or act of producing something that is concrete, tangible and useful. In the instant case, claims 1 and 13 encrypt and decrypt data. As such, claims 1 and 13 are considered functional descriptive material.

Claim 41 is drawn to a receiver for receiving encrypted text and therefore, claim 41 is a device claim and not software alone as alleged by the Examiner. As such, claim 41 is considered functional descriptive material.

Accordingly, it is respectfully submitted that claims 1, 13 and 41 are properly considered statutory subject matter within the meaning of 35 U.S.C. §101 and respectfully request that the rejection of claims 1, 13 and 41 under 35 U.S.C. §101 be withdrawn.

Additionally, claims 3-11, 14-17 and 45 are deemed patentable due at least to their dependence from corresponding claims 1, 13 and 41.

IV.   THE REJECTION OF CLAIMS 1, 3-4, 7, 8, 10-11, 16, 13, 18, 21, 24-25, 27, AND 30 UNDER 35 U.S.C. §103(a) AS BEING UNPATENTABLE OVER U.S. PATENT NO. 6,011,849 TO ORRIN.

Applicants respectfully traverse this rejection for at least the following reasons.

Independent claim 1 recites, a copy protection method to prevent unauthorized copying of digital data during digital data transmission between a sender and a receiver, comprising, amongst other novel features, **encrypting a first region of a text containing a second encryption key using a first encryption key; and encrypting a second region of the text using the second encryption key**.

Therefore, in the method recited in independent claim 1, a first region of a text containing a second encryption key is encrypted using a first encryption key and a second region of the text is encrypted using the second key.

The Examiner indicates that Orrin discloses encrypting a first region of a text containing second encryption key using a first encryption key and encrypting a second region of the text

using the second encryption key. In particular, the Examiner relies upon column 4, lines 10-15 and column 7, line 59 through column 8, line 8 of Orrin for such teachings.

However, Orrin discloses encrypting data using a Pseudo Random Number Generator (PRGN) generated session key (first key) to create a message ciphertext. Thereafter, Orrin discloses encrypting the session key (first key) using either a recipient's public key (for transmission security) (second key), or a predetermined user local key (for storage security) (third key). A header is added to the message ciphertext containing the encrypted session key (first key) and other information necessary for decryption purposes.

Accordingly, Orrin discloses an encryption method by which data is encrypted using a first key, encrypting the first key using a second key and adding a header to the encrypted data.

Therefore, Orrin fails to teach or suggest **encrypting a first region of a text containing a second encryption key using a first encryption key**; and **encrypting a second region of the text using the second encryption key**, as recited in independent claim 1.

Accordingly, Applicants respectfully assert that the rejection of claim 1 under 35 U.S.C. § 103(a) should be withdrawn because Orrin fails to teach or suggest each feature of independent claim 1.

Furthermore, Applicants respectfully assert that the rejection of dependent claims 3-4, 7-8, 10-11 and 16 under 35 U.S.C. § 103(a) should be withdrawn at least because of their dependence from claim 1 and the reasons set forth above, and because the dependent claims include additional features which are not taught or suggested by the prior art. Therefore, it is respectfully submitted that claims 3-4, 7-8, 10-11 and 16 also distinguish over the prior art.

Independent claim 13 recites a copy protection method, comprising, amongst other novel features, **decrypting the first region of the cipher text using** the transmitted **first encryption key** and the transmitted region segmentation information; **extracting the second encryption key** from the **decrypted first region using** the transmitted **second encryption key information; and decrypting the second region** of the text **using the extracted second encryption key**.

The Examiner relies upon Orrin for such teachings and in particular on column 9, lines 34-39. Orrin discloses a decryption method which is generally the equivalent of an encryption operation in reverse.

As noted above, <u>Orrin</u> discloses an encryption method by which data is encrypted using a first key, encrypting the first key using a second key and adding a header to the encrypted data. Accordingly, the decryption method taught by <u>Orrin</u> would consist of decrypting the first key using the second key and decrypting the data with the first key.

Therefore, <u>Orrin</u> fails to teach or suggest a method for decrypting cipher text as recited in independent claim 13.

Accordingly, Applicants respectfully assert that the rejection of claim 13 under 35 U.S.C. § 103(a) should be withdrawn because <u>Orrin</u> does not teach or suggest each feature of independent claim 13.

Independent claim 18 recites a computer readable medium encoded with processing instructions for implementing a method of encrypting a text, the method comprising, amongst other novel features, **encrypting a first region of** the **text using** a **first encryption key**, where the first region contains a second encryption key; **encrypting a second region of** the **text using** the **second encryption key**; transmitting the first encryption key and region segmentation information for segmenting the text into the first region and the second region; **decrypting** the **first region of** the **text using** the **first encryption key** and the transmitted region segmentation information; **extracting** the **second encryption key from** the decrypted **first region; and decrypting** the **second region** of the text **using** the extracted **second encryption key**.

As noted above, <u>Orrin</u> discloses an encryption method comprising encrypting data using a first key, encrypting the first key using a second key and adding a header to the encrypted data.

Accordingly, <u>Orrin</u> fails to teach or suggest the features recited in independent claim 18, including **encrypting a first region of** the **text using** a **first encryption key; encrypting a second region of** the **text using** the **second encryption key; decrypting** the **first region of** the **text using** the **first encryption key** and the transmitted region segmentation information; **extracting** the **second encryption key from** the decrypted **first region; and decrypting** the **second region** of the text **using** the extracted **second encryption key**.

Accordingly, Applicants respectfully assert that the rejection of claim 18 under 35 U.S.C. § 103(a) should be withdrawn because <u>Orrin</u> does not teach or suggest each feature of independent claim 18.

Furthermore, Applicants respectfully assert that the rejection of dependent claims 21, 24-25 and 27 under 35 U.S.C. § 103(a) should be withdrawn at least because of their dependence from claim 18 and the reasons set forth above, and because the dependent claims include additional features which are not taught or suggested by the prior art. Therefore, it is respectfully submitted that claims 21, 24-25 and 27 also distinguish over the prior art.

Independent claim 30 recites a computer readable medium encoded with processing instructions for implementing a method of decrypting an encrypted text, the method comprising, amongst other novel features, **decrypting a first region** of the encrypted text **using a first encryption key**, where the first region contains a second encryption key; **decrypting a second region** of the encrypted text **using** the **second encryption key**; decrypting the first region using region segmentation information; and extracting the second encryption key from the decrypted first region using information related to the second encryption key.

As noted above, the decryption method taught by Orrin consists of decrypting the first key using the second key and decrypting the data with the first key. Orrin fails to teach or suggest **decrypting a first region** of the encrypted text **using a first encryption key**, or **decrypting a second region** of the encrypted text **using** the **second encryption key**, as recited in independent claim 30.

Accordingly, Applicants respectfully assert that the rejection of claim 30 under 35 U.S.C. § 103(a) should be withdrawn because Orrin does not teach or suggest each feature of independent claim 30.

V.   THE REJECTION OF CLAIMS 5, 17, 15, 20, 22, 28-29, 32-33, 35, AND 41 UNDER 35 U.S.C. §103 (a) AS BEING UNPATENTABLE OVER ORRIN AND FURTHER IN VIEW OF APPLICANT'S ADMITTANCE OF PRIOR ART.

Applicants respectfully traverse this rejection for at least the following reasons.

Claims 5 and 17 depend from independent claim 1, and as noted above Orrin fails to teach or suggest all the features recited in independent claim 1.

Applicants' Admittance of Prior Art also fails to teach or fairly suggest the features recited in independent claim 1.

Accordingly, Applicants respectfully request that the rejection of dependent claims 5 and

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17 under 35 U.S.C. §103(a) be withdrawn because neither Orrin nor Applicants' Admittance of Prior Art, whether taken singly or combined, teach or suggest each of the features recited in independent claim 1 upon which claims 5 and 17 depend.

Claim 15 depends from independent claim 13, and as noted above Orrin fails to teach or suggest all the features recited in independent claim 13.

Applicants' Admittance of Prior Art also fails to teach or fairly suggest the features recited in independent claim 13.

Accordingly, Applicants respectfully request that the rejection of dependent claim 15 under 35 U.S.C. §103(a) be withdrawn because neither Orrin nor Applicants Admittance of Prior Art, whether taken singly or combined, teach or suggest each of the features recited in independent claim 13 upon which claim 15 depends.

Claims 20, 22 and 28-29 depend from independent claim 18, and as noted above Orrin fails to teach or suggest all the features recited in independent claim 18.

Applicants' Admittance of Prior Art also fails to teach or fairly suggest the features recited in independent claim 18.

Accordingly, Applicants respectfully request that the rejection of dependent claims 20, 22 and 28-29 under 35 U.S.C. §103(a) be withdrawn because neither Orrin nor Applicants Admittance of Prior Art, whether taken singly or combined, teach or suggest each of the features recited in independent claim 18 upon which claims 20, 22 and 28-29 depend.

Claims 32-33 and 35 depend from independent claim 30, and as noted above Orrin fails to teach or suggest all the features recited in independent claim 30.

Applicants' Admittance of Prior Art also fails to teach or fairly suggest the features recited in independent claim 30.

Accordingly, Applicants respectfully request that the rejection of dependent claims 32-33 and 35 under 35 U.S.C. §103(a) be withdrawn because neither Orrin nor Applicants Admittance of Prior Art, whether taken singly or combined, teach or suggest each of the features recited in independent claim 30 upon which claims 32-33 and 35 depend.

Independent claim 41 recites a receiver for receiving encrypted text, comprising an authenticator to obtain a safe transmission path through which a first encryption key, region segmentation information, and information related to a second encryption key are received, and a decryptor to **decrypt a portion of** the **encrypted text using** the **first encryption key** and the region segmentation information, **to extract** the **second encryption key from** the **decrypted portion** using the information related to the second encryption key, and to decrypt another portion of the encrypted text using the second encryption key.

As noted above, Orrin discloses a method for encrypting data using a first key and encrypting the first key using a second key. Orrin also discloses a decrypting method which is the equivalent of the encryption operation in reverse. Accordingly Orrin discloses decrypting a first key using a second key and using the first key to decrypt the data.

Accordingly, Applicants respectfully request that the rejection of claim 41 under 35 U.S.C. §103(a) be withdrawn because neither Orrin nor Applicants Admittance of Prior Art, whether taken singly or combined, teach or suggest each of the features recited in independent claim 41.

Furthermore, Applicants respectfully assert that the rejection of dependent claims 42-45 under 35 U.S.C. § 103(a) should be withdrawn at least because of their dependence from claim 41 and the reasons set forth above, and because the dependent claims include additional features which are not taught or suggested by the prior art. Therefore, it is respectfully submitted that claims 42-45 also distinguish over the prior art.

VI.   THE REJECTION OF CLAIMS 6, 9, 14, 23, 26, AND 34 UNDER 35 U.S.C. §103 (a) AS BEING UNPATENTABLE OVER ORRIN IN VIEW OF MCGOUGH (US 6,445,797).
Applicants respectfully traverse this rejection for at least the following reasons.

Claims 6 and 9 depend from independent claim 1, and as noted above Orrin fails to teach or suggest all the features recited in independent claim 1.

McGough discloses a secure digital streaming system that employs SEMTS and the alphabet and key matrix representation of the related SEMS in a new series of simple mathematics and either hardware, firmware, or software processes that create an individual and unique, time-derived variable length Base 9 numeric message key; a key-based offset for the 6 bit segment alphabet resolution or a random number based ordering for the 6 bit alphabet

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resolution (column 3, lines 45-63).

McGough fails to teach or suggest a method to prevent unauthorized copying of digital data during digital data transmission between a sender and a receiver, comprising, amongst other novel features, **encrypting a first region of a text containing a second encryption key using a first encryption key**; and **encrypting a second region of** the text **using** the **second encryption key**.

Accordingly, Applicants respectfully assert that the rejection of claims 6 and 9 under 35 U.S.C. § 103(a) should be withdrawn because neither Orrin nor McGough, whether taken singly or combined, teach or suggest each feature of independent claim 1 upon which claims 6 and 9 depend.

Claim 14 depends from independent claim 13, and as noted above, Orrin fails to teach or suggest all the features recited in independent claim 13.

McGough fails to teach the features recited in independent claim 13 and thus fails to cure the deficiencies of Orrin.

Accordingly, Applicants respectfully assert that the rejection of claim 14 under 35 U.S.C. § 103(a) should be withdrawn because neither Orrin nor McGough, whether taken singly or combined, teach or suggest each feature of independent claim 13 upon which claim 14 depends.

Claims 23 and 26 depend from independent claim 18 and as noted above, Orrin fails to teach or suggest all the features recited in independent claim 18.

McGough fails to teach the features recited in independent claim 18 and thus fails to cure the deficiencies of Orrin.

Accordingly, Applicants respectfully assert that the rejection of claims 23 and 26 under 35 U.S.C. § 103(a) should be withdrawn because neither Orrin nor McGough, whether taken singly or combined, teach or suggest each feature of independent claim 18 upon which claims 23 and 26 depend.

Claim 34 depends from independent claim 30, and as noted above Orrin fails to teach or suggest all the features recited in independent claim 30.

McGough fails to teach the features recited in independent claim 30 and thus fails to cure the deficiencies of Orrin.

Accordingly, Applicants respectfully assert that the rejection of claim 34 under 35 U.S.C. § 103(a) should be withdrawn because neither Orrin nor McGough, whether taken singly or combined teach or suggest each feature of independent claim 30 upon which claim 34 depends.

VII. CONCLUSION

In accordance with the foregoing, it is respectfully submitted that all outstanding rejections have been overcome and/or rendered moot. And further, that all pending claims patentably distinguish over the prior art. Thus, there being no further outstanding rejections, the application is submitted as being in condition for allowance which action is earnestly solicited.

If the Examiner has any remaining issues to be addressed, it is believed that prosecution can be expedited and possibly concluded by the Examiner contacting the undersigned attorney for a telephone interview to discuss any such remaining issues.

If there are any underpayments or overpayments of fees associated with the filing of this Amendment, please charge and/or credit the same to our Deposit Account No. 503333.

Respectfully submitted,

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